

AEDC

**Arnold Engineering Development Center
Arnold Air Force Base, Tenn. 37389**

An Air Force Materiel Command Test Facility

*America's
Aerospace
Advantage*



Test Before Flight

www.arnold.af.mil

Arnold Engineering Development Center (AEDC) is the most advanced and largest complex of flight simulation test facilities in the world. The center operates 58 aerodynamic and propulsion wind tunnels, rocket and turbine engine test cells, space environmental chambers, arc heaters, ballistic ranges and other specialized units.

Twenty-seven of the center's test units have capabilities unmatched elsewhere in the United States; 14 are unique in the world. Facilities can simulate flight conditions from sea level to 300 miles and from subsonic velocities to Mach 20.

The Arnold Engineering Development Center is an Air Force Materiel Command facility and an important national resource. It has contributed to the development of practically every one of the nation's top priority aerospace programs including the Atlas, Titan, Minuteman and Peacekeeper ICBMs, the space shuttle, space station, and Projects Mercury, Gemini and Apollo.

Aircraft include the F-35 Joint Strike Fighter, F/A-22 Raptor, A-10 Thunderbolt II, F-14 Tomcat, F-15 Eagle, F-16 Fighting Falcon, F/A-18 Hornet & F/A-18 Super Hornet, F-105 Thunderchief, F-111 Aardvark, F-117A Nighthawk, C-5 Galaxy, C-17 Globemaster III, C-141 Starlifter, B-1B Lancer, B-2 Spirit, B-52 Stratofortress, B-58 Hustler, X-15, X-29, X-32 & X-33, X-35, XB-70 Valyire.

Satellites include NAVSTAR GPS, MAPS, and GOES weather satellite

Missiles include the Polaris, Poseidon and Trident submarine-launched ballistic



An aerial view of the Arnold Engineering Development Center

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missiles, plus the Tomahawk and Air-Launched Cruise Missiles and the Advanced Medium-Range Air-to-Air Missile.

Customers include the Department of Defense, Army, Navy and Air Force organizations; the National Aeronautics and Space Administration, both domestic and foreign private industry, allied foreign governments and educational institutions.

Arnold Engineering Development Center is named for the man responsible for its conception—General of the Air Force Henry H. "Hap" Arnold. Shortly before the end of World War II, General Arnold asked Dr. Theodore von Karman, one of history's great aeronautical scientists, to form a Scientific Advisory Group to chart a long-range research and development course for the future U.S. Air Force. AEDC was a result of that plan.

The AEDC mission is to:

- Test and evaluate aircraft, missile and space systems and subsystems at the flight conditions they will experience during a mission to: help customers develop and qualify the systems for flight, improve system designs and establish performance before production, and to help users troubleshoot problems with operational systems;
- Conduct a research and technology program to develop advanced testing techniques and instrumentation and to support the design of new test facilities. The continual improvement helps satisfy testing needs and keeps pace with rapidly advancing aircraft, missile and space system requirements;
- Maintain and modernize the center's existing test facilities.



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For information on AEDC visit our Website at www.arnold.af.mil

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